

MORRISON'S OPERATION FOR ASCITES DUE TO LAENNEC'S CIRRHOSIS.¹

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THE patient we have to present gives the following history:

J. C., male, forty-six years old, a laborer, was at three different times a patient in the Presbyterian Hospital.

At the time of his first admission, July, 1898, he complained of indigestion, occasional vomiting, some dyspnoea, and a gradually increasing enlargement of the abdomen, besides swelling of the ankles and feet. The patient's history showed no syphilitic, tuberculous, or rheumatic disease. He had been an habitual user of alcohol for many years, chiefly in the form of whiskey.

Abdominal paracentesis relieved the symptoms, and his general condition improving, he left the hospital in the following September. He was able to work for several weeks. There was a gradual recurrence of his former symptoms, and he again entered the hospital, March 27, 1899. Repeated attacks of diarrhoea had troubled him all winter. Physical examination at this time showed an abdomen moderately distended; tympanitic in the epigastric, hypochondriac, and umbilical regions, dull in lumbar and hypogastric. Fluid wave appreciable. Edge of liver not palpable. Splenic edge not palpable because of abdominal distention, but the area of percussion dulness was increased. Stomach tympany reached as high as the upper border of the fourth rib. The superficial veins of the abdomen are more distended than usual. There was a slight cyanosis of the lower extremities. Circumference of abdomen at the umbilicus was thirty-seven inches.

¹ Read before the New York Surgical Society, April 9, 1902.

Thorax.—Heart apex not appreciable by inspection or palpation, apparently in the fourth space just within the nipple-line. Second sound slightly accentuated. There is moderate icteroid tinge of the face and conjunctiva.

Lungs.—Negative over the right; left gives dulness posteriorly over the lower fourth, and with slight feebleness of respiration murmur. Pulse is of low tension, without thickening of the vessel walls. He was treated for eleven days with diuretics and became salivated. As during this time his circumference had decreased but a little over half an inch, paracentesis was resorted to on April 10, and he was discharged improved on April 28, 1899.

He worked during one week, when his symptoms rapidly reappeared, and he was readmitted to the hospital on May 31, 1899. His abdomen is more distended than at any previous time, besides having oedema of the scrotum and lower extremities. The urine contained albumen and casts. There was some endocardial trouble. Circumference at the umbilicus, thirty-nine inches.

Abdominal paracentesis was performed on June 1, 1899, 356 ounces; June 14, 333 ounces; June 23, 323 ounces; July 5, 392 ounces; July 18, 337 ounces; July 27, 347 ounces; August 10, 397 ounces; August 20, 381 ounces. Total quantity in seven weeks was 2866 ounces.

The man was rapidly losing. He was so well aware of his hopeless state that the proposal of the attending physician, Dr. Tuttle, to be transferred to the Surgical Division for operation was accepted.

On September 1 measurement of the abdomen showed forty-one inches. (Fig. 1.)

Operation, September 2, 1899.—Chloroform; asepsis. A five-inch incision was made between the ensiform and umbilicus, and a two-inch incision above the symphysis. On evacuation of ascitic fluid, the omentum was seen to be small, shrivelled, and lumpy. The veins were large and tense. The lower margin of the omentum reached to the umbilicus, where it was adherent to the parietal peritoneum. The round ligament was the size of a finger and hard. The liver was hard and small. On its surface were the characteristic hobnail lesions. The spleen was thought to be more than twice its normal size. The convexities of the liver and spleen as well as the peritoneal surfaces opposed to

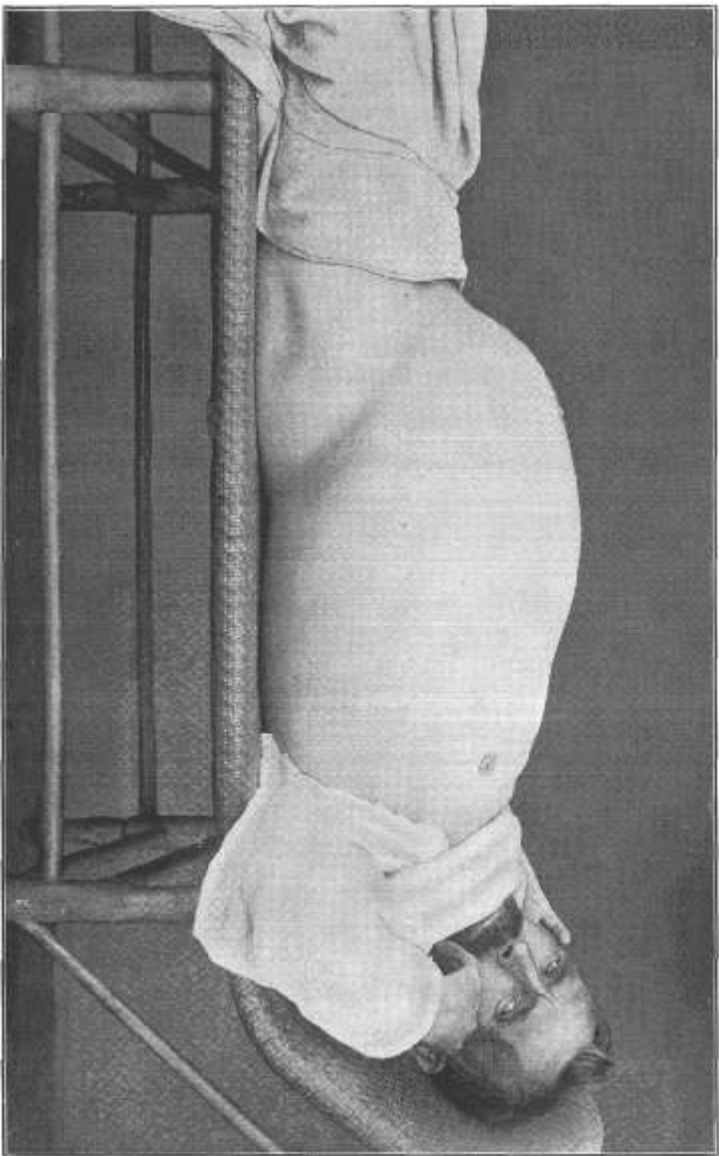


FIG. 1.—J. C. September 1, 1899. The day before operation. Circumference of abdomen, forty-one inches.

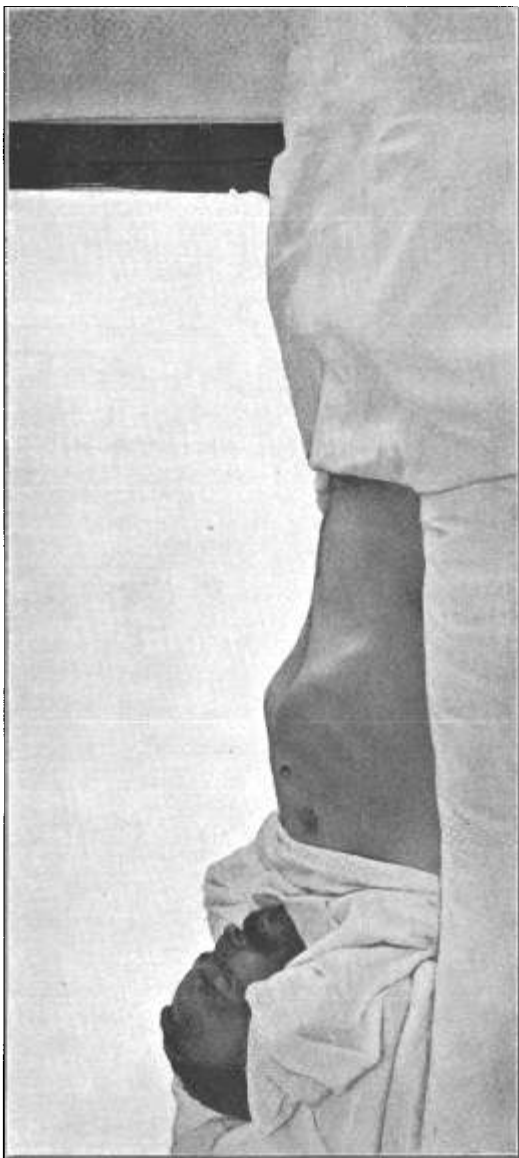


FIG. 2.—J. C. October 10, 1901. Two years after operation.

them were vigorously rubbed with dry gauze sponges grasped in long metal holders. The parietal peritoneum fronting the omentum was treated in the same way before suturing these tunics with chromicized catgut. There was but one transverse line of eight or ten sutures. The layers of this upper abdominal wound were individually closed in the usual way.

Through the lower wound an inch and a quarter diameter glass tube was passed into the pelvis behind the bladder. Capillary drainage was provided for by sterile gauze led through the tube. Adhesive straps half encircling the trunk were drawn over the upper dressing from the ensiform to the umbilicus. Vomiting was troublesome for the forty-eight hours after operation. Champagne was serviceable.

The large gauze and cotton dressings had frequently to be changed; the bed was sometimes wet from the serous overflow. At each change a syringe passed into the glass tube would generally remove six to eight ounces of serum. During the second week the quantity of ascitic fluid was much less. The upper wound healed *per primam*. Compression of the lower part of thorax and upper part of abdomen was continued for three months. On the twenty-third day the large glass tube was changed for a smaller one. The patient at this date was sitting up in bed eating and digesting solid food for the first time in seven months. The abdomen at the umbilicus measured thirty-five inches.

October 10, the thirty-eighth day, drainage tube removed. Patient out of bed. October 18, abdomen measured thirty-two and a half inches. November 1, both wounds closed; measurement, thirty-two inches. Appetite good; bowels regular. Urine gives no evidence of albumen or casts.

At our request, Dr. Tuttle on January 5, 1900, kindly made a physical examination of the patient and reported as follows:

"Patient well nourished. Color good. No jaundice. Chest somewhat barrel-shaped. Lower border of ribs somewhat everted and prominent, superficial veins prominent, especially on right side.

"*Heart*.—Apex beat neither visible nor palpable. Located by auscultation in fifth intercostal space, three and three-quarters inches to left of median line. Action regular and of moderate force. No murmurs.

"*Lungs*.—Percussion note in front a little wooden in quality. Slight dullness over both bases behind. Breathing over both apices in front a little roughened, rather feeble over both bases behind. Voice normal. No râles.

"*Abdomen*.—Not prominent. A moderate amount of superficial fat. Two linear scars in median line, one above and one below the umbilicus. Superficial veins not prominent. Percussion note moderately tympanitic all over and decidedly tympanitic over epigastrium. A little dullness in both flanks, but no signs of fluid.

"Palpation shows an area of slightly greater resistance, and an indefinite rather than soft mass in hypogastric region beneath and around the lower scar, apparently due to adhesions. There is nowhere any tenderness to pressure.

"*Liver*.—Dullness extends from fifth rib to near the costal margin. The edge cannot be felt.

"*Spleen*.—The area of dullness is increased. The edge is not felt.

"Extremities normal, with exception of some brown pigmentation over shins.

"The changes noted in comparing with examination in April, 1899, are: Heart apex has descended from fourth to fifth intercostal space. Liver dullness begins at fifth instead of fourth rib. The circumference of abdomen has diminished from thirty-seven inches to thirty-two inches, while the fat of the abdominal wall has decidedly increased."

On leaving the hospital three months later, the patient was able to take up heavy work again, and has never had any recurrence of the ascites, although his former alcoholic habit has improved but moderately. In September, 1901, he entered the hospital again for a suppurative inguinal adenitis secondary to an infecting venereal lesion of the prepuce. Removal of both parts was attended with prompt healing. When in the ward convalescing from this operation; a third picture (Fig. 2) was taken; and we requested Dr. George A. Tuttle to again examine the patient in order to note any changes which might have occurred since his former report of the case made three months after operation. Dr. Tuttle writes as follows:

"I examined J. C. to-day, and find on comparison that there are practically no changes to be made in the report of January 6,

1900. There are slight hernial protrusions both above and below the umbilicus where the incisions were made. The heart and liver are in the same position noted in the former examination.

"I found no evidence of fluid in the abdominal cavity. My impression is that his general nutrition is not so good as when I examined him before. At that time he was still in the hospital and living regularly, while now he has hardly recovered from his recent trouble."

At the meeting of this Society on December 13, 1899, I presented this same patient. At that time, three months had elapsed since I had performed Morrison's operation. The case was duly reported in the *ANNALS OF SURGERY*, Vol. xxxi, page 489, under the caption, "Cirrhotic Ascites treated by Peritoneal Anastomoses." Again, in a paper entitled "The Surgical Treatment of Ascites due to Cirrhosis of the Liver," it was published in the *Medical and Surgical Reports of the Presbyterian Hospital for 1900*. But until Dr. G. E. Brewer's recent paper, "The Surgical Treatment of Ascites due to Cirrhosis of the Liver," *Medical News*, February 8, 1902, the case had not been cited in the tabulated lists of any of the fairly numerous articles appearing since the compilation of fourteen cases already alluded to as made by the speaker in 1900, and referred to here in brief. Consequently, I have felt inclined to seek an opportunity to show the patient again after an interval of two and a half years, and to put on record the first case in this country¹ where a systematized effort was successfully

"The case of cirrhosis of the liver on which I performed Talma's operation on August 18, 1899, was operated on on account of daily hæmorrhaging letter:

"100 STATE STREET, CHICAGO, October 21, 1901.

"The case of cirrhosis of the liver on which I performed Talma's operation on August 18, 1899, was operated on on account of daily hæmorrhaging letter: In the course of the operation

CORRECTION.

For the first two lines of the foot-note on page 195, of the August *ANNALS OF SURGERY*, substitute the following:

¹ "The operation of Dr. Emil Ries on August 18, 1899, being done for intestinal hæmorrhage and not ascites, as he explained in the following courteous and very interesting letter."

undertaken to cure a rapidly recurring ascites by a surgical operation.

In the paper which I published in the *Report of the Presbyterian Hospital for 1900*, I reviewed more or less fully fourteen cases of Talma's and Morrison's operation, and found that seven, or 50 per cent., appeared to belong to the division headed greatly improved or cured, namely,—

CASES REPORTED.	GREATLY IMPROVED OR CURED.
Van der Meulen.....	1
Schelkley	1
Lens	1
Drummond and Morrison..	4
Talma	1
Weir	1
Rolleston and Turner.....	2
Bossouski	1
Neumann	1
Brown	1
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As the result of my examination of the records of these cases, I made the following observations:

“We feel assured that the great risks attending operation on advanced and failing cases of ascites due to cirrhosis will be notably wanting in similar procedures applied in earlier stages of the disease.

“Some impressions derived from these reported cases and observations of our single patient may be summarized as follows, presuming, of course, that we are dealing with pretty straight cases of ascites due to cirrhosis of the liver.

“(1) The more rapid have been the accumulations of ascitic fluid, the greater the reason to provide for long-continued drainage which is to follow the operation, and to expect that very gradual improvement in all symptoms is the most and best which can be hoped for.

“(2) In these advanced and apparently hopeless cases of rapidly recurring ascitic accumulations, the three things of greatest import appear to be:

“(a) The full appreciation before operation of the neces-

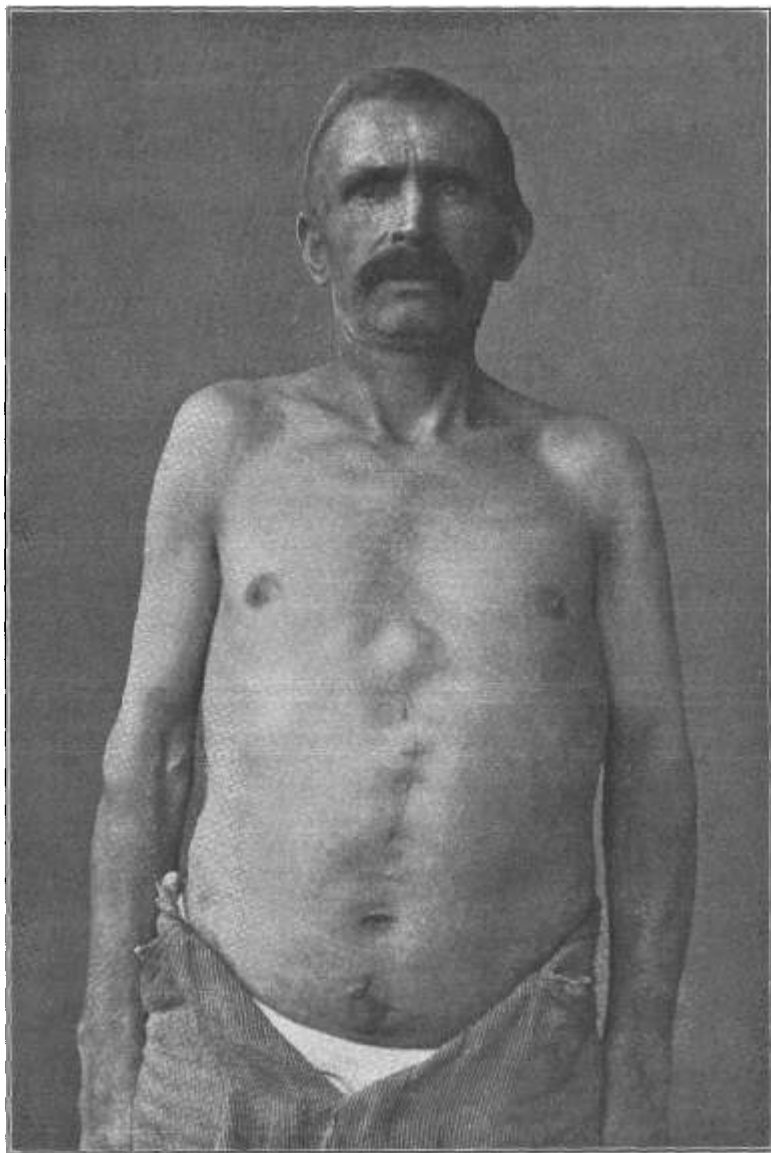


FIG. 3.—J. C. February 1, 1902. Two years and five months after operation, showing supra- and infra-umbilical cicatrices.

sity and the provision for a constant and thorough aseptic pelvic drainage.

“(b) The general observance of a rational and aseptic operative technique, such as that used in the third case of Mr. Morrison, and which we followed quite closely in our case. In other words, the readiness to forego the introduction of personal innovations until those methods which appear reasonable shall have been proven faulty.

“(c) The value of Morrison's adhesive strapping to keep in approximation the denuded peritoneal surfaces, and at the same time to compel the serous effusion to find its only available space in the pelvis, appears to us most evident. The importance of the long continuance of this device we had accentuated on two occasions, when a hospital interne attempted at the end of four weeks and again later to dispense with the adhesive strapping. Each time an accession of ascitic fluid to the upper part of the peritoneal cavity was apparent.

“(d) An unusual vascularity of the granulation tissue forming the infra-umbilical fistula was shown on several occasions, especially during the last stages, at dressings, by so considerable a hæmorrhage as to require instant plugging. From this the writer has inferred that an important and considerable part of the anastomotic circulation may in this patient's case be maintained by this particular band of adhesions.”